**PATENT** 

Attorney Docket No.: 9090.0003

Serial No.: 09/537,849

## **IN THE CLAIMS:**

1. (Currently Amended) A method for georeferencing a raster map image, comprising:

displaying a raster map and a georeferenced map;

annotating a point on the raster map;

identifying image coordinates associated with at least two points the annotated point on the raster map;

annotating a point on the georeferenced map;

identifying geographic coordinates <u>associated with the annotated point</u> on the georeferenced map that correspond to the <del>points identified</del> <u>annotated point</u> on the raster map;

repeating annotating a point on the raster map, identifying image
coordinates associated with the annotated point on the raster map, annotating a point
on the georeferenced map, and identifying geographic coordinates associated with the
annotated point on the georeferenced map at least a second time; and
determining a mathematical relationship between the image coordinates
and the geographic coordinates.

2. (Previously Presented) The method of claim 1, further comprising:
using the mathematical relationship to determine the geographic
coordinates of at least one feature on the raster map.

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3. (Previously Presented) The method of claim 1, further comprising: storing the mathematical relationship with the raster map.

- 4. (Previously Presented) The method of claim 1, further comprising: manipulating the raster map to display a location on the raster map; and updating the display of the georeferenced map to display a location identical to the location displayed on the raster map.
- 5. (Original) The method of claim 1, wherein the geographic coordinates are latitude and longitude.
- 6. (Original) The method of claim 1, wherein the raster map and the georeferenced map are displayed on the same computer display.
- 7. (Original) The method of claim 1, wherein the corresponding points are marked by a user after visually determining geographically corresponding points.
- 8. (Previously Presented) The method of claim 1, wherein the mathematical relationship is represented by a set of general linear functions.
- (Currently Amended) An apparatus for georeferencing a raster map 9. image, comprising:

means for displaying a raster map and a georeferenced map; means for annotating a point on the raster map;

means for identifying image coordinates as sociated with at least twopoints the annotated point on the raster map;

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means for annotating a point on the georeferenced map;

means for identifying geographic coordinates of points associated with the annotated point on the georeferenced map that correspond to the points identified annotated point on the raster map;

means for repeating annotating a point on the raster map, identifying image coordinates associated with the annotated point on the raster map, annotating a point on the georeferenced map, and identifying geographic coordinates associated with the annotated point on the georeferenced map at least a second time; and means for determining a mathematical relationship between the image coordinates and the geographic coordinates.

- 10. (Previously Presented) The apparatus of claim 9, further comprising:
  means for using the mathematical relationship to determine the
  geographic coordinates of at least one feature on the raster map.
  - 11. (Previously Presented) The apparatus of claim 9, further comprising: means for storing the mathematical relationship with the raster map.
- 12. (Previously Presented) The apparatus of claim 9, further comprising:

  means for manipulating the raster map to display a location on the raster

  map; and

means for updating the display of the georeferenced map to display a location identical to the location displayed on the raster map.

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- 13. (Previously Presented) The apparatus of claim 9, wherein the geographic coordinates are latitude and longitude.
- 14. (Previously Presented) The apparatus of claim 9, wherein the raster map and the georeferenced map are displayed on the same computer display.
- 15. (Previously Presented) The apparatus of claim 9, wherein the corresponding points are marked by a user after visually determining geographically corresponding points.
- 16. (Previously Presented) The apparatus of claim 9, wherein the mathematical relationship is represented by a set of general linear functions.
- 17. (Previously Presented) The method of claim 1 further comprising: identifying image coordinates associated with at least one point on the raster map;

identifying geographic coordinates of points on the georeferenced map that correspond to the point identified on the raster map; and revising the mathematical relationship.

18. (Previously Presented) The method of claim 17, wherein revising further comprises disregarding any points previously identified that are substantially inconsistent with the mathematical relationship.

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(Previously Presented) The apparatus of claim 9 further comprising:

means for identifying image coordinates associated with at least one point

on the raster map;

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means for identifying geographic coordinates of points on the georeferenced map that correspond to the point identified on the raster map; and means for revising the mathematical relationship.

20. (Previously Presented) The apparatus of claim 19, wherein the means for revising further comprises means for disregarding any points previously identified that are substantially inconsistent with the mathematical relationship.

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